SC000200 Unit Outline

Introduction to Scientific Observation and Classification

Unit 2: Learning About Life Cycles

Abstract

In this life science unit children are introduced to the concept of life cycle through the investigation of familiar animals. They recognize that animals change as they mature. Children learn that the egg is the first stage of an animal. They begin to recognize that animals have predictable life cycles. Children examine the differences among certain animal life cycles and how these differences allow the individual to survive.

Lesson 1 – What Is Change? (SC000201)
This lesson is the first of a series of lessons about the life cycles of familiar animals. The children are introduced to life cycles by observing changes in themselves. The children bring in photographs of themselves as babies and compare them to a current photograph. They observe changes in their physical appearance and also discuss how they have grown more independent. The children cut pictures out of magazines depicting humans in different stages of their lives. They make a life cycle wheel and sing a song about growing.

Lesson 2 – What Grows? (SC000202)
This lesson focuses on learning about what kinds of things can grow. Children discover that only living things grow. They watch a video and read a book about organisms growing. The children complete a chart of things that grow and things that do not grow.

Lesson 3 – Not All Organisms Grow The Same Way (SC000203)
Children learn that plants and animals do not all grow in the same way. The children revisit the *Everything Grows* video and book *Watch Them Grow* and note the differences in the ways that the animals and plants grow and change. The children observe that some organisms change very little and others make many changes. They also identify the animals that resemble their parents at birth and the animals that do not.

Lesson 4 – Predicting Growth Patterns (SC000204)
Children predict growth patterns of animals. Children discover that animals of the same kind are always born the same way and grow the same way. They learn the names of baby animals and match mothers to their babies.

Lesson 5 – The Cycle of Life (SC000205)
This lesson is about the cycle of life including birth, growth, reproduction, and death. The video, *Charlotte's Web*, is used as a tool to introduce and explain these concepts. The children watch as a spider is born, grows up, has babies, and dies. They also see the life cycles of other animals on the farm.

Lesson 6 – Live vs. Hatched (SC000206)
Children identify how animals are born. The children read a book and watch videos about life cycles and animal mothers. They make a chart of animals that hatch from eggs and animals that are born alive.

Lesson 7 – Animals Hatched From Eggs (SC000207)
The focus of this lesson is on the animals that hatch from eggs with emphasis on snakes and birds. The children look at photographs and listen to books about animals that hatch from eggs. The children make a booklet entitled "Who's Hiding?"

Lesson 8 – Growing Up and Growing Old (SC000208)
Children compare the characteristics of children and adults in various animals. They compare the stages of growing up in animals and humans. Finally, they look at characteristics of older people.

Lesson 9 – Field Trip (SC000209)
In this lesson, the children take a trip to a farm, zoo, or local animal shelter to observe animals. The children go on a scavenger hunt to look for animals in various stages of development along with pregnant animals, eggs, and other stages in life cycles. They use a disposable or digital camera to take pictures. The children use these photographs to confirm their understanding of life cycles.

Lesson 10 – Life Cycle Poster (SC000210)
In this lesson, the children make a poster using the photographs from Lesson 9 and information learned throughout this unit. They add text to accompany each picture on their poster. The children share and display their posters.

Michigan Benchmarks

Describe life cycles of familiar organisms (III.2.E.3).
Key Concepts: Life cycle stages – egg, young, adult; seed, plant, flower, fruit; larva, pupa.

Real-World Contexts: Common plants and animals such as bean plants, apple trees, butterflies, grasshoppers, frogs, birds.

Show how the life cycles of familiar organisms can be represented through drawing (II.1.E.2).
Key Concepts: Poetry, expository work, painting, drawing, music, diagrams, graphs, charts.

Real-World Contexts: Explaining simple experiments using paintings and drawings; describing natural phenomena scientifically and poetically. .

National Science Education Standards

Through the activities in this unit, students and teachers can meet the following National Science Education Standards:

Life Science CONTENT STANDARD C:
As a result of their activities in grades k-4, all students should develop an understanding of

- The characteristics of organisms
- Life cycles of organisms
- Organisms and environments.